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ORIG. S. A. M.

PROJ.

STAT

DATE 5/14/59

## SERVICE BULLETIN NO. 398

FOR AIRPLANE / EQUIPMENT SERIAL NO.

TITLE NOISE FILTER INSTAL. - INTERIM FOR  
SYSTEM IV SHIPSPURPOSE REDUCE INVERTER NOISE AND AUTOPILOT  
NOISE AFFECTING SYSTEM IV

APPLICATION 370, 374, 376, 344

## WORK COMPLETED

DATE

FOREMAN

INSPECTOR

## WHEN TO BE DONE

Immediately

## EST. MAN-HOURS TO COMPLETE

8 hrs

JX52C	FILTER	1 Req.
B135B	FILTER	3 Req.
AN 3106E-10S-2S	PLUG	3 Req.
V2AA12	WIRE	18 Inches
C33FF18	WIRE	18 Inches
C34FF18	WIRE	18 Inches

REF. DWG. NO.

R-32, R-55

E &amp; M MANUAL

## APPROX. AVAILABILITY DATE OF KIT AT WRAMA

WEIGHT AND BALANCE CHANGE NIL

UR's THIS BULLETIN CORRECTS

SPARES, ETC.

SPECIAL TOOLS REQUIRED NONE

## KIT COMPLETED BY

CONTRACTOR

DATE

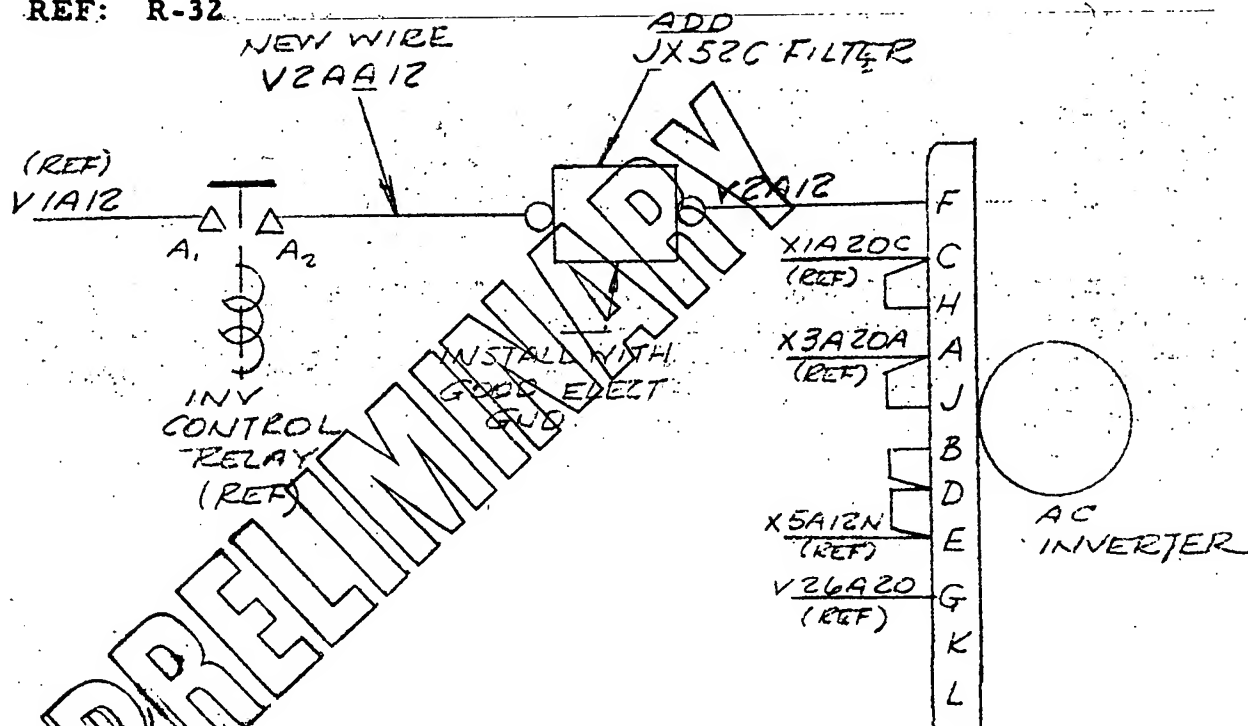
INSPECTOR

## DESCRIPTION OF CHANGE

1. THIS BULLETIN IS AN INTERIM FIX TO ALLEVIATE NOISE PROBLEM EXISTING ON SYSTEM IV SHIPS. IT IS BASED ON RESULTS OF TESTS MADE FOR SYSTEM VII. A FINAL FIX WILL BE MADE FOR SYSTEM IV ON COMPLETION OF A FLIGHT TEST NOISE PROGRAM.
2. THE BEACON LIGHTS ARE A SOURCE OF RADIO INTERFERENCE AND MUST BE TURNED OFF WHILE SYSTEM IV IS OPERATING.

IN ORDER TO REDUCE INVERTER NOISE, INTRODUCED INTO THE 28V DC BUS SYSTEM AND WIRE BUNDLES OF THE EQUIPMENT BAY AREA, THE JX52C FILTER IS TO BE ADDED ON THE INVERTER SHELF. THE FILTER IS TO BE LOCATED WITHIN 6" OF THE INVERTER AND THE MOUNT IS TO BE A GOOD ELECTRICAL GROUND TO SHIP STRUCTURE.

REF: R-32



THE ~~Y2A~~2C FILTER IS TO BE ADDED IN THE Y2A12 WIRE FROM INVERTER TO INVERTER CONTROL RELAY. IT IS TO BE LOCATED WITHIN 6" OF INVERTER. THE V2AA12 WIRE IS ENCLOSED WITH SERVICE BULLETIN TO PROVIDE NEEDED WIRE LENGTH.

## RESULTS

**ADDITION OF FILTER ELIMINATES: 30-114mc NOISE IN BUNDLES, A1C-1D INTERPHONE BACKGROUND NOISE, 100-130 kc NOISE IN ARN-6, AND ELIMINATES INTERFERENCE PREVIOUSLY DETECTED IN VICINITY OF DEFOG FAN.**

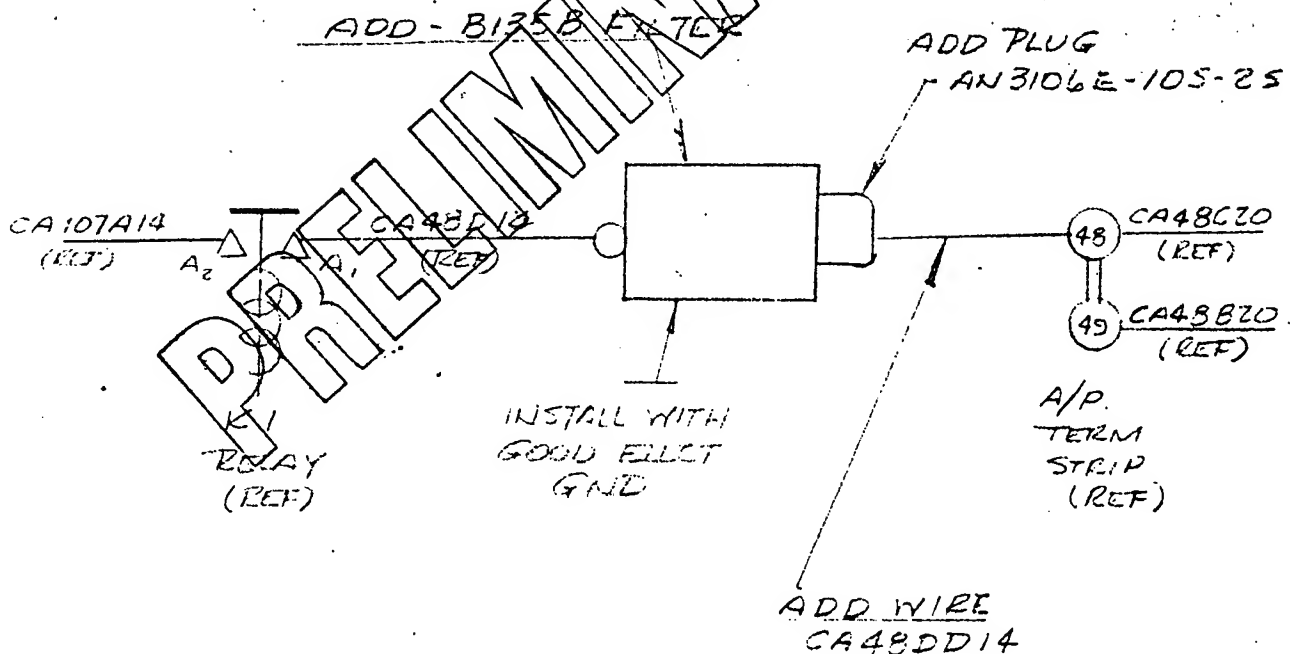
#### 4. AUTOPILOT NOISE

IN ORDER TO REDUCE TRANSIENT SPIKES OF 15 TO 20 VOLTS AMPLITUDE INDUCED IN R. H. WIRE BUNDLE AND NOISE TERMINAL STRIP AREA THE FOLLOWING FILTERS ARE TO BE ADDED.

- A. INSTALL B-135-B FILTER IN DC POWER CIRCUIT TO GYRO CONTROL AMPLIFIER. FILTER TO BE LOCATED ON NOSE RACK JUST BELOW PANEL SUPPORTING YAW DIRECTIONAL GYRO.

THE WIRING CHANGE IS AS FOLLOWS:

REF: R-55



- B. INSTALL B-135-B FILTERS IN ELEVATOR TRIM MOTOR CIRCUIT. (ONE IN ELEVATOR TRIM UP CIRCUIT, ONE IN ELEVATOR TRIM DOWN CIRCUIT) FILTERS TO BE LOCATED ON HAT SECTION IN VICINITY OF K5 AND K6 RELAYS AND HUNG FROM HAT.

THE WIRING CHANGE IS AS FOLLOWS:

REF: R-55

